

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An electrochemical biosensor comprising:
(1) a [[A]] hollow electrochemical cell for measuring a concentration of glucose in a blood sample, the hollow electrochemical cell comprising:
 - a) at least one non-metal working electrode;
 - b) at least one counter electrode or counter/reference electrode, wherein the working electrode and the counter electrode or counter/reference electrode face each other, are not co-planar, and are separated by a distance of from about 20 microns to about 200 microns; [[and]]
 - c) a spacer interposed between the working electrode and the counter electrode or counter/reference electrode, wherein the spacer comprises a non-conductive polymeric material, and wherein the hollow electrochemical cell has an effective cell volume of less than 1.5 microliters; and(2) means for measuring from cell current the diffusion coefficient of a redox mediator in the cell and independently its concentration.
2. (Currently Amended) The electrochemical biosensor ~~hollow electrochemical cell~~ of claim 1, wherein at least one non-metal working electrode comprises a material selected from the group consisting of graphite, carbon, and carbon-filled plastic.
3. (Currently Amended) The electrochemical biosensor ~~hollow electrochemical cell~~ of claim 2, wherein at least one counter electrode or counter/reference electrode comprises a metal substrate or a metal coated substrate.
4. (Currently Amended) The electrochemical biosensor ~~hollow electrochemical cell~~ of claim 3, wherein the metal is selected from the group consisting of gold, silver, platinum, palladium, iridium, lead, and alloys thereof.
5. (Currently Amended) The electrochemical biosensor ~~hollow electrochemical cell~~ of claim 4, wherein the metal comprises silver, and wherein the blood sample comprises chloride ions and a reduced form of a redox species or an oxidized form of a redox species.

6. (Currently Amended) The electrochemical biosensor ~~hollow electrochemical cell~~ of claim 1, wherein walls of the spacer and the electrodes define the effective cell volume of the hollow electrochemical cell.